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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|----------------|----------------------|-------------------------|------------------|
| 09/660,926 | 09/13/2000 | Nobuaki Tokushige | 900-348 | 7467 |
| 7. | 590 01/04/2002 | | | |
| Nixon & Vanderhye PC 8th Flooor 1100 North Glebe Rd | | | EXAMINER | |
| | | | HU, SHOUXIANG | |
| Arlington, VA 22201-4714 | | | ART UNIT | PAPER NUMBER |
| | | | 2811 | |
| | | | DATE MAILED: 01/04/2002 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| - | | L Application No. | · · · · · · · · · · · · · · · · · · · | | | |
|---|--|-------------------------------------|--|--|--|--|
| Office Action Summary | | Application No. | Applicant(s) | | | |
| | | 09/660,926 | TOKUSHIGE, NOBUAKI | | | |
| | | Examiner | Art Unit | | | |
| | The MAIL INC DATE of this communication and | Shouxiang Hu | 2811 | | | |
| Period fo | The MAILING DATE of this communication app r Reply | pears on the cover sheet with the c | orrespondence address | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status | | | | | | |
| 1) | Responsive to communication(s) filed on 13 S | September 2000 . | | | | |
| 2a)□ | | is action is non-final. | | | | |
| 3)[| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Disposition of Claims | | | | | | |
| 4) Claim(s) 1-21 is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6)[| Claim(s) is/are rejected. | | | | | |
| 7) | Claim(s) is/are objected to. | | | | | |
| 8) Claim(s) 1-21 are subject to restriction and/or election requirement. | | | | | | |
| Application | on Papers | | | | | |
| 9)☐ The specification is objected to by the Examiner. | | | | | | |
| 10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. | | | | | | |
| _ | Applicant may not request that any objection to the | | | | | |
| 11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner. | | | | | | |
| If approved, corrected drawings are required in reply to this Office action. | | | | | | |
| | The oath or declaration is objected to by the Ex | aminer. | | | | |
| | nder 35 U.S.C. §§ 119 and 120 | | | | | |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | | |
| a)⊠ All b) Some * c) None of: | | | | | | |
| 1. Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). | | | | | | |
| a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. | | | | | | |
| Attachment(s) | | | | | | |
| 2) Notice | e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449) Paper No(s) | 5) Notice of Informal F | (PTO-413) Paper No(s) Patent Application (PTO-152) | | | |

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DETAILED ACTION

Election/Restriction between Product and Method

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-20, drawn to a product, classified in class 257, subclass 347.
 - II. Claim 21, drawn to a method, classified in class 438, subclass 479.

The inventions are distinct, each from the other because of the following reasons: Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP '806.05(f)). In the instant case the product as claimed can be made by a materially different process such as forming the sidewall spacer by forming the insulating film only in the area covering the trench, instead of on the whole area, and then selectively etching the insulating film; or, the sidewall spacer can be formed through oxidation of the sidewall surface of the contact opening.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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Election/Restriction among Distinct Speci s

2. In addition, claims in Group I directed to semiconductor device are further restricted as follows:

This application contains claims 1-20 directed to the following patentably distinct species of the claimed invention:

- 1. Embodiment of Figs. 1a-1b
- 2. Embodiment of Figs. 3-5d
- 3. Embodiment of Figs. 8a-8b
- 4. Embodiment of Fig. 9

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none is generic.

3. Applicant is advised that a reply to this requirement, to be complete, must include an election of the invention to be examined, even though the requirement may be traversed (37 CFR 1.143). And, if electing claims from invention I, the election must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include

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all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP '809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Shouxiang Hu* whose telephone number is **(703) 306-5729**. The examiner can normally be reached on Monday through Thursday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Tom Thomas*, can be reached on (703) 308-2772. The appropriate fax

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phone number for the organization where this application or proceeding is assigned is **(703) 308-7724**.

Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center Receptionists** whose telephone number is **(703) 308-0956**.

Shouxiang Hu

January 3, 2002